## **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listing, of claims in the application:

## **Listing of Claims:**

**(1)** 

- 1. (Original) A purified and isolated nucleic acid molecule comprising a nucleotide sequence of SEQ ID NO: 1 that encodes at least one of:
  - (i) an insecticidal protein complex, or
  - (ii) a functional fragment of said complex, or
  - (iii) a neutral mutation of said complex, or
  - (iv) a homolog of said complex,

each of which have at least 75% nucleic acid homology to SEQ ID NO: 1 and are capable of hybridizing with said nucleic acid molecule under stringent hybridisation conditions.

- 2. (Currently amended) A The purified and isolated nucleic acid molecule as claimed in claim l, comprising the nucleotide sequence 1995-18937 of SEQ ID NO: 1.
- 3. (Currently amended) A The purified and isolated nucleic acid molecule as claimed in claim 1 comprising one or more of the nucleotide sequences 2411-9547, 9589-13883 or 14546-17467 of SEQ ID NO: 1.
- 4. (Currently amended) A The purified and isolated nucleic acid molecule as claimed in claim 3 comprising all of nucleotide sequences 2411-9547, 9598-13884 and 14546-17467 of SEQ ID NO: 1.
- 5. (Currently amended) A The purified and isolated nucleic acid molecule as claimed in claim 1 comprising a sequence of SEQ ID NO: 1, operably linked to at least one further nucleotide sequence which encodes an insecticidal protein.
- 6. (Currently amended) A The purified and isolated nucleic acid molecule as claimed in claim 2 comprising nucleotides 1955-18937 of SEQ ID NO: 1, operably linked to at least one further nucleotide sequence which encodes an insecticidal protein.

- 7. (Currently amended) A The purified and isolated nucleic acid molecule as claimed in claim 3 comprising a sequence of SEQ ID NO: 1, or one or more of nucleotides 2411-9547, 9598-13884 or 14546-17467 of SEQ ID NO: 1, operably linked to at least one further nucleotide sequence which encodes an insecticidal protein.
- 8. (Currently amended) A The purified and isolated nucleic acid molecule of claim 4 wherein the nucleotide sequence includes the nucleotide sequence which codes for at least one of the *Bacillus* delta endo toxins, vegetative insecticidal proteins (vips), cholesterol oxidases, *Clostridium* bifermentens mosquitocidal toxins and/or *Photorhabadus luminescens* toxins.
- 9. (Currently amended) A <u>The</u> purified and isolated nucleic acid molecule as claimed in claim 1 wherein <u>the</u> nucleic acid molecule may comprise DNA, cDNA or RNA.
- 10. (Currently amended) A The purified and isolated nucleic acid molecule as claimed in claim 1 wherein the nucleic acid molecules said fragment, neutral mutation or homolog thereof capable of hybridising to said nucleic acid molecule, hybridise to the nucleotide sequence of SEQ ID NO: 1, or nucleotides 1955-18937, 2411-9547, 9598-13884 or 14546-17467 of SEQ ID NO: 1 if there is at least 75% or greater identity between the sequences.
- 11. (Currently amended) A <u>The</u> purified and isolated nucleic acid molecule as claimed in claim 1 wherein the nucleic acid molecule may be isolated from *Serratia entomophila* or *Serratia proteamaculans* strains of bacteria.
- 12. (Currently amended) A The recombinant expression vector(s) containing the nucleic acid molecule as claimed in claim 1 and host transformed with the vector expressing a polypeptide.
- 13. (Currently amended) A The recombinant expression vector(s) as claimed in claim 11 wherein the vector is selectable from any suitable natural or artificial plasmid/vector.
- 14. (Currently amended) A <u>The</u> recombinant expression vector(s) as claimed in claim 13 wherein said suitable natural or artificial plasmid/vector, including, pUC 19 (Yannish-Perron et al. 1995), pProEX HT (GibcoBRL, Gaithersburg, MD, USA), pBR322 (Bolivar et al. 1977),

pACYC184 (Chang etal. 1978), pLAFR3 (Staskowicz et al. 1987).

- 15. (Currently amended) A <u>The</u> polypeptide resulting from the transformation or transfection of a host cell with a recombinant expression vector of claim 12.
- 16. (Currently amended) A The method of producing a polypeptide of claim 15 comprising the steps of:
- (a) culturing a host cell which has been transformed or transfected with said vector as defined above to express the encoded polypeptide or peptide; and
- (b) recovering the expressed polypeptide or peptide.
- 17. (Previously presented) A ligand that binds to a polypeptide of claim 15.
- 18. (Currently amended) A The ligand as claimed in claim 17, wherein the ligand is an antibody or antibody binding fragment.
- 19. (Previously presented) Probes and primers comprising a fragment of the nucleic acid molecule as claimed in claim 1 wherein said fragment is hybridisable under stringent conditions to a native insecticidal gene sequence.
- 20. (Previously presented) Probes and primers comprising a fragment of the nucleic acid molecule as claimed in claim 19 wherein said probes and primers enable the structure and function of the gene to be determined and homologs of the gene to be obtained from bacteria other than Serratia sp.
- 21. (Currently amended) A The polypeptide as claimed in claim 15 wherein the polypeptide has insecticidal activity encoded by the nucleic acid molecule of claim 1, or a functional fragment, neutral mutation or homolog thereof.
- 22. (Currently amended) A The polypeptide having insecticidal activity as claimed in claim 21, wherein the polypeptide comprises the amino acid is encoded by a nucleotide sequence of SEQ IP NO: 1 or a functional fragment, neutral mutation or homolog of such a nucleotide sequence.

23. (Currently amended) A <u>The polypeptide having insecticidal activity as claimed in claim 21</u> wherein the polypeptide comprises amino acids is encoded by nucleotides 32-5118 of SEQ ID NO: 1.

Æ.

- 24. (Currently amended) A <u>The</u> polypeptide having insecticidal activity as claimed in claim 21 wherein the polypeptide comprises at least one amino acid sequence of SEQ ID NO: 2; SEQ ID NO: 3; SEQ ID NO: 4; SEQ ID NO: 5 or SEQ ID NO: 6.
- 25. (Currently amended) A The polypeptide having insecticidal activity as claimed in claim 24 wherein the polypeptide preferably comprises amino acid sequence SEQ ID NO: 4; SEQ ID NO: 5 and SEQ ID NO: 6.
- 26. (Currently amended) A <u>The</u> polypeptide having insecticidal activity as claimed in claim 24 wherein the polypeptide preferably comprises all of SEQ ID NOs: 2-6.
- 27. (Currently amended) A The polypeptide having insecticidal activity as claimed in claim 21 wherein the polypeptide is obtained by expression of a DNA sequence coding therefore in a host cell or organism.
- 28. (Currently amended) A The polypeptide having insecticidal activity as claimed in claim 27 wherein the polypeptide comprises the amino acid sequence of SEQ ID NO:1 linked to at least one further amino acid sequence encoding an insecticidal protein.
- 29. (Currently amended) A The polypeptide having insecticidal activity as claimed in claim 28 wherein the at least one further amino acid sequence includes the amino acid sequence which codes for *Bacillus* delta endo toxins, vegatative vegetative insecticidal proteins (vips), cholesterol oxidases, Clostridium bifermentens mosquitocidal toxins and/or Photorhabadus luminescents toxins.
- 30. (Currently amended) A The polypeptide having insecticidal activity as claimed in claim 28 wherein the polypeptides comprise at least 50%, preferably 60%, more preferably 70% and most preferably 90-95% or greater identity to SEQ ID NO: 1.

31. (Currently amended) A The polypeptide having insecticidal activity as claimed in claim 21 wherein the polypeptide is produced by expression of a vector comprising the nucleic acid of SEQ ID No: 1 or a functional fragment, neutral mutation or homolog thereof, in a suitable host cell.

11

- 32. (Previously presented) An insecticidal composition comprising at least the polypeptide as claimed in claim 21 and an agriculturally acceptable carrier.
- 33. (Currently amended) An The insecticidal composition as claimed in claim 32 wherein more than one polypeptide is included in the composition.
- 34. (Currently amended) An <u>The</u> insecticidal composition of claim 32, wherein the composition further comprises additional pesticides.
- 35. (Currently amended) An The insecticidal composition as claimed in claim 34 wherein the composition comprises other known insecticidally active agents, including *Bacillus* delta endo toxins, vegatative vegetative insecticidal proteins (vips), cholesterol oxidases, *Clostridium bifermentens* mosquitocidal toxins and/or *Photorhabadus luminescents* toxins.
- 36. (Previously presented) A method of combating pests, said method comprising applying to a locus, host and/or the pest, an effective amount of the polypeptide as claimed in claim 21 that has functional insecticidal activity against said pest.
- 37. (Previously presented) A method of inducing amber disease or like condition in insects comprising delivery to an insect an effective amount of the polypeptide as claimed in claim 21 that has functional insecticidal activity against said insect.
- 38. (Previously presented) A method of inducing amber disease or like condition in insects as claimed in claim 37 comprising delivery to an insect an effective amount of the polypeptide wherein the insect is selected from the order comprising Coleoptera.
- 39. (Previously presented) A method of inducing amber disease or like condition in insects as claimed in claim 38 comprising delivery to an insect an effective amount of the polypeptide wherein

the insect includes Costelytra zealandica (Coleoptera: Scarabaeidae).

di

- 40. (Previously presented) A method of delivering the insecticidal polypeptide to induce amber disease or like condition in insects including delivery of the insecticidal polypeptide as claimed in claim 39 to the insect by a method selected from the group consisting of: presenting the insecticidal polypeptide orally as a solid bait matrix, as a sprayable insecticide sprayed onto a substrate upon which the insect feeds, applied directly to the soil subsurface or as a drench or is expressed in an transgenic plant, bacterium, virus or fungus upon which the insect feeds.
- 41. (Previously presented) A transgenic plant, bacterium, virus or fungus, incorporating in its genome, a nucleic acid molecule as claimed in claim 1 for providing the plant, bacterium, virus or fungus with an ability to express an effective amount of an insecticidal polypeptide.
- 42. (Previously presented) A purified and isolated nucleic acid molecule of claim 5, wherein the sequence of nucleotides encodes at least one of the *Bacillus delta* endo toxins, vegetative insecticidal proteins (VIPS), cholesterol oxidases, *Clostridium bifermentes* mosquitocidal toxins or *Photorhabadus luminescens* toxins.
- 43. (Currently amended) An The purified and isolated nucleic acid molecule of claim 6, wherein the sequence of nucleotides encodes at least one of the *Bacillus delta* endo toxins, vegetative insecticidal proteins (VIPS), cholesterol oxidases, *Clostridium bifermentes* mosquitocidal toxins or *Photorhabadus luminescens* toxins.
- 44. (Currently amended) An The insecticidal composition of claim 33, wherein the composition further comprises additional pesticides.
- 45. (Previously presented) The insecticidal composition of claim 34, wherein an additional pesticide comprises a compound that has herbicidal, fungicidal, insecticidal or nematicidal activity.
- 46. (Previously presented) The insecticidal composition of claim 44, wherein an additional pesticide comprises a compound that has herbicidal, fungicidal, insecticidal or nematicidal activity.

- 47. (Previously presented) A polypeptide resulting form the transformation or transfection of a host cell with a recombinant expression vector of claim 13.
- 48. (Previously presented) A polypeptide resulting form the transformation or transfection of a host cell with a recombinant expression vector of claim 14.